

Claims

1. A method for regulating a delivery variable ( $H$ ;  $Q$ ) of a pump, which is driven  
5 by an electric motor operated with alternating current of variable frequency,  
especially via a converter, wherein the input power ( $P$ ) of the motor is measured as  
the actual value for the delivery variable and is regulated by comparison with a  
desired value ( $P_{des}$ ), characterized in that, upon a change in the temperature ( $T$ ) in  
the motor, a corresponding compensating variable ( $\Delta P$ ;  $\Delta H$ ;  $\Delta R$ ) is taken into  
10 account in the control for the purposes of correcting the input power ( $P$ ).
2. A method according to claim 1, characterized in that the compensating  
variable ( $\Delta P$ ) is retrieved up from a stored table of associated input power change  
values and temperature values of the motor in dependence on the temperature of  
15 the motor (Fig. 4).
3. A method according to claim 1, characterized in that a table that contains the  
pressure change ( $\Delta P$ ) of the pump at different input powers ( $P$ ) of the motor at the  
time the operating temperature of the motor is reached is empirically prepared and  
20 stored, and from the table a pressure change is retrieved in dependence on the  
actual value ( $P_{act}$ ) of the input power ( $P$ ) as a compensating variable during the  
regulation (Figure 5).
4. A method according to claim 1, characterized in that from the compensating  
25 variable ( $\Delta R$ ) and a frequency control variable ( $f$ ) an approximate actual speed  
value ( $n_a$ ) is calculated, which, together with a desired pressure value ( $H_{des}$ ), is  
used to retrieve an accompanying desired input power value ( $P_{des}$ ) from a stored,

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prepared table of associated values (Fig. 6).

Method for regulating a delivery variable in an electric motor operated with alternating current via a converter, wherein the input power ( $P_{in}$ ) is a measured value for the delivery variable and is associated with a desired value ( $P_{des}$ ), characterized in that associated with the input power ( $P_{in}$ ) a desired value ( $P_{des}$ ) of the motor at a predetermined speed ( $n$ ) is determined empirically and stored as a table, and the desired value ( $P_{des}$ ) belonging to a measured output power ( $P$ ) of the motor is retrieved from the table as a function of the input power ( $P_{in}$ ).

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